

IN THE CLAIMS

1. through 3. (Canceled)

4. (Currently Amended) ~~The method according to claim 2, further comprising steps of:~~
A method for setting up a down-stream communication session in a basic service set (BSS) in a wireless network, the communication session having a defined quality of service (QoS), the method comprising:

detecting a first Path message and a first Resv message (Path/Resv message) of a RSVP protocol at a designated subnet bandwidth manager (DSBM) in a station having a point coordinator (PC), the first Resv message originating from a subnet bandwidth manager (SBM) of a non-PC station in the BSS, and requesting a resource reservation for setting up a down-stream session between the PC station and at least one destination non-PC station in the BSS;

extracting at the DSBM a QoS parameter set and a classifier from the first Path/Resv message for the session;

determining at the DSBM whether to admit the down-stream session to the network based on the QoS parameter set defining the session and a channel status report on a medium access control (MAC) sublayer of the BSS; and

when the down-stream session is admitted, setting up by a QoS management entity (QME) of the PC station a virtual down-stream (VDS) between the PC station and the destination non-PC station for transporting the down-stream session traffic, the DSBM being part of the QME in the PC station;

the method further comprising:

assigning by the QME a virtual stream identifier (VSID) to the VDS;

instructing by the QME a frame classification entity (FCE) to create an entry corresponding to the VDS in a frame classification table of the FCE, the FCE being logically located in a logical link control (LLC) sublayer of the PC station, the entry in the frame classification table including the VSID and the classifier associated with the down-stream session; and

instructing by the QME a frame scheduling entity (FSE) to create an entry corresponding to the VDS in a frame scheduling table of the FSE, the FSE being logically

located in the MAC sublayer of the PC-station, the entry in the frame scheduling table including the VSID and the QoS parameter set associated with the down-stream session;

the method further comprising:

detecting a second Path/Resv message at the DSBM, the second Path/Resv message originating outside the DSBM and requesting a change of at least one QoS parameter value associated with the down-stream session;

extracting at the DSBM the changed QoS parameter set and the classifier from the second Path/Resv message for the session;

finding at the QME the VSID that is associated with the extracted classifier;

determining at the DSBM whether to grant the request for change based on the changed QoS parameter set and the channel status report;

when the request is not granted, operating the down-stream session according to the QoS parameter set contained in the frame scheduling table for the VDS; and

when the request is granted, instructing by the QME the FSE to update the entry in the frame scheduling table corresponding to the VDS by changing at least one QoS parameter value associated with the VDS based on the requested change.

5. through 11. (Canceled)

12. (Currently Amended) ~~The PC station according to claim 10;~~ A point coordinator (PC) station in a basic service set (BSS) in a wireless network, the PC station comprising:

a designated subnet bandwidth manager (DSBM) detecting a first Path message and a first Resv message (Path/Resv message) of a RSVP protocol, the first Resv message originating from a subnet bandwidth manager (SBM) of a non-PC station in the BSS and requesting a resource reservation for setting up a down-stream session between the PC station and at least one destination non-PC station in the BSS, the DSBM extracting a quality of service (QoS) parameter set and a classifier from the first Path/Resv message for the session, and determining whether to admit the down-stream session to the network based on the QoS parameter set defining the session and a channel status report on a medium access control (MAC) sublayer of the BSS; and

a QoS management entity (QME) responsive to the DSBM admitting the session setting up a virtual down-stream (VDS) between the PC station and the destination non-PC station for transporting the down-stream session traffic, the DSBM being part of the QME in the PC station;

wherein the QME assigns a virtual stream identifier (VSID) to the VDS, instructs a frame classification entity (FCE) to create an entry corresponding to the VDS in a frame classification table of the FCE, the FCE being logically located in a logical link control (LLC) sublayer of the PC station, the entry in the frame classification table including the VSID and the classifier associated with the down-stream session, and instructs a frame scheduling entity (FSE) to create an entry corresponding to the VDS in a frame scheduling table of the FSE, the FSE being logically located in the MAC sublayer of the PC-station, and the entry in the frame scheduling table including the VSID and the QoS parameter set associated with the down-stream session,

wherein the DSBM detects a second Path/Resv message at the DSBM, the second Path/Resv message originating outside the DSBM and requesting a change of at least one QoS parameter value associated with the down-stream session, the DSBM extracting the changed QoS parameter set and the classifier from the second Path/Resv message for the session,

wherein the QME finds the VSID that is associated with the extracted classifier;

wherein the DSBM determines whether to grant the request for change based on the changed QoS parameter set and the channel status report,

wherein when the request is not granted, the down-stream session is operated according to the QoS parameter set contained in the frame scheduling table for the VAS, and

wherein when the request is granted, the QME instructs the FSE to update the entry in the frame scheduling table corresponding to the VDS by changing at least one QoS parameter value associated with the VDS based on the requested change.

13. through 16. (Canceled)